

DERWENT-ACC-NO: 2001-221404
DERWENT-WEEK: 200123
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TITLE: Semiconductor device e.g. thin film transistor, MOS transistor for personal computer, has metallic element provided in n-type impurity area, with preset area thickness and preset impurity concentration distribution

PATENT-ASSIGNEE: SEMICONDUCTOR ENERGY LAB[SEME]

PRIORITY-DATA: 1999JP-0129179 (May 10, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
JP 2001028338	January 30, 2001	N/A
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APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
JP2001028338A	N/A	2000JP-0134349
May 8, 2000		

INT-CL (IPC): G02F001/1368; H01L021/20 ; H01L021/336 ; H01L029/786

ABSTRACTED-PUB-NO: JP2001028338A
BASIC-ABSTRACT: NOVELTY - The semiconductor film has n-type impurity area containing 15 group element. The n-type impurity area includes metallic element for promoting crystallization of silicon. The impurity concentration distribution of n-type impurity area, having thickness of 1 multiply 1020 atoms/cm to 5 multiply 1020 atoms/cm, is 3-5 nm.

USE - E.g. thin film transistor, MOS transistor, used in digital camera, personal computer provided with electro-optical display

device, EL display
device.

ADVANTAGE - As semiconductor film has outstanding
crystallinity, TFT with high
electrolysis effect mobility is produced. Moreover,
reliability of TFT is
raised.

DESCRIPTION OF DRAWING(S) - The figure shows density
concentration distribution
of 15 group element.

CHOSEN-DRAWING: Dwg.1/23

TITLE-TERMS:

SEMICONDUCTOR DEVICE THIN FILM TRANSISTOR MOS TRANSISTOR
PERSON COMPUTER
METALLIC ELEMENT N TYPE IMPURE AREA PRESET AREA THICK
PRESET IMPURE CONCENTRATE
DISTRIBUTE

DERWENT-CLASS: L03 P81 U11 U12 U14

CPI-CODES: L04-C02; L04-E01; L04-E01B;

EPI-CODES: U11-C01J1; U11-C18A3; U12-B03A; U14-K01A2B;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-066778

Non-CPI Secondary Accession Numbers: N2001-157865

濃度 $\text{atoms} \cdot \text{cm}^{-3}$

10^{20}

半導体膜

下地膜

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